

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A network relay device connected to a first communications network communicating with a first channel band and a second communications network with which said device can transmit data after securing a second channel band, said device including a first network interface where said device is connected to the first communications network and a second network interface where said device is connected to the second communications network, said device comprising:

an event/state detecting section for detecting an event and/or a state regarding the first communications network via the first network interface;

a communications resource determination section for determining ~~a~~the second channel band to be obtained, changed, or released in the second communications network, in accordance with the event and/or the state, regarding the first communications network, detected by the event/state detecting section; and

a communications resource management section for obtaining, changing, or releasing ~~a~~the second channel band in the second communications network via the second network interface on the basis of the channel band ~~calculated~~determined by the communications resource determination section.

2. (Currently Amended) The network relay device according to claim 1, wherein:

the first communications network is a communications network with which said device can transmit data after securing ~~a~~the first channel band, and

the event and/or the state, regarding the first communications network, detected by the event/state detecting section is obtaining, ~~change~~changing, or ~~release~~releasing of ~~a~~the first channel band in the first communications network, or a channel band obtaining state, for data to be transferred between the first communications network and the second communications network.

3. (Original) The network relay device according to claim 1, wherein:

the event and/or the state, regarding the first communications network, detected by the event/state detecting section is reception or completed reception of data itself to be transferred from the first communications network to the second communications network.

4. (Currently Amended) The network relay device according to claim 1, wherein:

the communications resource determination section ~~calculates~~determines, on ~~a-~~the first channel band obtained by measurement of data group received from the first communications network, a band required for communications of the data group in the second communications network.

5. (Currently Amended) The network relay device according to claim 1, wherein:

the first communications network is a communications network with which said device can transmit data after securing ~~a-~~the first channel band, and

the communications resource determination section ~~calculates~~determines ~~a-~~the second channel band in the second communications network, on the basis of ~~a-~~the first channel band obtained, changed, or released in the first communications network.

6. (Currently Amended) The network relay device according to claim 5, wherein:

the communications resource determination section estimates a bandwidth of data transmitted through the first channel band obtained, changed, or released in the first communications network, and then ~~calculates~~determines ~~the~~second channel band in the second communications network on the basis of the estimated bandwidth.

7. (Currently Amended) The network relay device according to claim 1, wherein:

the communications resource determination section ~~calculates~~determines ~~the~~second channel band to be secured in the second communications network, with consideration of a property of the second communications network.

8. (Currently Amended) The network relay device according to claim 7, wherein:

the communications resource determination section ~~calculates~~determines ~~a~~the ~~second~~ channel band to be secured in the second communications network, on the basis of (i) ~~a~~ channel bands required in the second communication network for (i) normal data transmission ~~in the second communications network~~ and (ii) ~~a~~ channel band required for data retransmission.

9. (Currently Amended) The network relay device according to claim 1, further comprising:

a communications state detecting section for detecting a communications state in the second communications network,

wherein:

the communications resource management section changes the second channel band having been obtained in the second communications network, in accordance with a change in communications state of a band-obtained data in the second communications network.

10. (Currently Amended) The network relay device according to claim 9, wherein:

the communications state detecting section detects an error rate of data transmission in the second communications network, and if the error rate exceed a given value, the communications resource management section increases ~~a~~the ~~second~~ channel band having been obtained in the second communications network.

11. (Currently Amended) The network relay device according to claim 9, wherein:

the communications state detecting section detects a data communications time in the second communications network, and as a result of comparison between the data communications time and a time given by an already allocated channel band, the communications resource management section changes the second channel band obtained in the second communications network.

12. (Currently Amended) The network relay device according to claim 1, comprising:
a network management section for detecting a communications resource management station which manages ~~a-the second~~ channel band in the second communications network,
wherein:
from which communications station on the second communications network serves as the communications resource management station, detected by the network management section, the communications resource management section judges whether said network relay device is to obtain, change, or release ~~a-the second~~ channel band or is to request other communications station on the second communications network to obtain, change, or release ~~a-the second~~ channel band.

13. (Previously Presented) The network relay device according to claim 1, wherein:
the event/state detecting section receives information on network state from other communications device connected to the first network.

14. (Previously Presented) The network relay device according to claim 1, wherein:
the event/state detecting section requests information on network state to other communications device connected to the first network.

15. (Original) The network relay device according to claim 14, wherein:
the event/state detecting section checks a network state in the first communications network at regular intervals.

16. (Previously Presented) The network relay device according to claim 14, wherein:
the event/state detecting section checks a network state in the first communications network upon receipt of notification of a predetermined event from the first communications network.

17. (Currently Amended) The network relay device according to claim 1, wherein:
the communications resource management section obtains, changes, or releases ~~a—the second~~ channel band in the second communications network, after a lapse of a given time from detection of a network state in the first communications network.

18. (Previously Presented) The network relay device according to claim 1, wherein:
the event/state detecting section detects, as the network state in the first communications network, presence or absence of other entity which communicates data with said device in the first communications network.

19. (Previously Presented) The network relay device according to claim 1, wherein:
the event/state detecting section detects, as the network state in the first communications network, a connection established state in the first communications network.

20. (Currently Amended) A network relay device, connected to (i) a first communications network with which said device can transmit data after securing a ~~communications resource~~ ~~channel band on the first communication network~~ and (ii) a second communications network having a property which is different from that of the first communications network, said device including a first network interface where said device is connected to the first communications network and a second network interface where said device is connected to the second communications network,

said device comprising:

a network component to which other communications station connected to the first communications network makes access so as to secure a channel band on the first communications network; and

a connection management section for identifying a connection that corresponds to a communication resource which has failed to be obtained or which is released, and controlling availability/unavailability of the network component.

21. (Previously Presented) The network relay device according to claim 20, wherein:

the connection management section, upon receipt of a connection cut-off request or a band release request regarding a connection or band having been set on the first communications network, disables the network component, on said network relay device, associated with the connection or the band.

22. (Previously Presented) The network relay device according to claim 1, wherein:

the first communications network or the second communications network is in conformity with IEEE1394.

23. (Previously Presented) The network relay device according to claim 1, wherein:

the first communications network or the second communications network is a wireless network.

24. (Original) The network relay device according to claim 16, wherein:

the first communications network is in conformity with IEEE1394, and

an event notified from the first communications network is a bus reset defined by the IEEE1394.

25. (Currently Amended) The network relay device according to claim 2, wherein:

the first communications network is in conformity with IEEE1394, and

as a state of obtaining a-the first channel band in the first communications network, used is a value of BANDWIDTH_AVAILABLE or CHANNELS_AVAILABLE register held by an Isochronous Resource Manager in the first communications network.

26. (Original) The network relay device according to claim 19, wherein:

the first communications network is in conformity with IEEE1394, and

as the connection established state in the first communications network, used is a connection counter value of a Plug Control Register held by a data transmitting station or data receiving station in the first communications network.

27. (Previously Presented) The network relay device according to claim 20, wherein: the network component is any one of a register, a Plug Control Register, and a 1394 node.

28. (Currently Amended) A network relay computer program stored on causing a computer readable medium which when executed causes a computer to execute an operation of the network relay device according to claim 1.

29. (Currently Amended) A storage-computer readable medium containing-encoded with a network relay computer program causing a computer to execute an operation of the network relay device according to claim 1.

30. (Previously Presented) The network relay device according to claim 21, wherein: resetting a structure of the first network is further carried out.

31. (New) The network relay device according to claim 1, wherein: the communication resource management section changes the second channel band by multiplying the second channel band with a predetermined factor.

32. (New) The network relay device according to claim 6, wherein: the estimated bandwidth is estimated by dividing a size of the data transmitted through the first channel band by a storage time of the data transmitted through the first channel band.

33. (New) A communication method wherein a relay node is connected to a first communications node communicating with a first channel band and a second communications

node with which said relay node can transmit data after securing a second channel band, said relay node including a first interface where said relay node is connected to the first communications node and a second interface where said relay node is connected to the second communications node, wherein the communication method comprising the steps of:

- a) detecting an event and/or a state regarding the first communications node via the first interface;
- b) determining the second channel band to be obtained, changed, or released in the second communications node, in accordance with the event and/or the state, regarding the first communications node, as detected in step a); and
- c) obtaining, changing, or releasing the second channel band in the second communications node via the second interface on the basis of the channel band determined in step b).

34. (New) A communication method wherein a relay node, connected to (i) a first communications node with which said relay node can transmit data after securing a channel band on the first communication node and (ii) a second communications node having a property which is different from that of the first communications node, said relay node including a first interface where said relay node is connected to the first communications node and a second interface where said relay node is connected to the second communications node, wherein the communication method comprising the steps of:

accessing a network component to secure a channel band on the first communications node; and

identifying a connection that corresponds to a communication resource which has failed to be obtained or which is released, and controlling availability/unavailability of the network component.